SCHEME OF STUDIES FOR MSc.
IN ECONOMICS AT
UNIVERSITY OF SARGODHA
w.e.f 2014

DEPARTMENT OF ECONOMICS
UNIVERSITY OF SARGODHA
# University of Sargodha
## Department of Economics
### Scheme of Studies of MSc. Economics

#### Semester I

<table>
<thead>
<tr>
<th>Codes</th>
<th>Subject</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Econ-501</td>
<td>Micro Economics I</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-503</td>
<td>Macro Economics I</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-505</td>
<td>Mathematical Economics I</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-507</td>
<td>Islamic Economics</td>
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<tr>
<td>Econ-509</td>
<td>Public Sector Economics</td>
<td>3(3-0)</td>
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#### Semester II

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<tbody>
<tr>
<td>Econ-502</td>
<td>Micro Economics II</td>
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<tr>
<td>Econ-504</td>
<td>Macro Economics II</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>Econ-506</td>
<td>Statistics for Economists</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>Econ-508</td>
<td>Managerial Economics</td>
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<tr>
<td>Econ-510</td>
<td>Development Economics, Theory and Policy</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-512</td>
<td>Political Economy and Global Order</td>
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<tr>
<td>Econ-511</td>
<td>Econometrics I</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-513</td>
<td>Mathematical Economics II</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-515</td>
<td>Financial Management for Business Firm</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-517</td>
<td>Agricultural Economics</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-519</td>
<td>Monetary Theory and Policy</td>
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## Semester IV

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<th>Codes</th>
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<tr>
<td>Econ-514</td>
<td>Econometrics II</td>
<td>3(3-0)</td>
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<tr>
<td>Econ-516</td>
<td>Research Methodology</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>Econ-518</td>
<td>Human Resource development and Management</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>Econ-520</td>
<td>International Trade Theory &amp; Finance</td>
<td>3(3-0)</td>
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Econ-522  Investment and Project Appraisal  3(3-0)  
Econ-524  Economic Principles, Strategies & Techniques of Marketing  3(3-0)  

**OR**

**in place of Econ-522 and Econ-524**

| Thesis* | 6 (6-0) |

*However, this option will be available to only 5 top students if they would like to opt*
Introduction

Theory of Consumer Behavior and Demand Analysis

Market Demand & Elasticity

Production Functions

Cost of Production

Profit Maximization and Supply
The nature & behaviour of firms. Profit maximization. Marginal Revenue. Short Run supply by a Price taking firm. Profit maximization and input demand. The controversy over the
profit maximization hypothesis. Cost minimization. relationship between cost and production curves.

The Theory of Market Behavior

Perfect competition: The Perfectly competitive market:
The assumptions of the Model: Short run equilibrium of the price taker firm: Long run equilibrium of the price taker firm:
Equilibrium of the industry: Mathematical Derivation of Equilibrium Prices and Quantity: Difference between Perfect and Pure Competition; Price and Output Decision. Mathematical derivation of Price and Quantity.

Monopoly: Monopoly & its Basics:
The negatively sloping demand curve: Short run equilibrium, Long Run Equilibrium:
Price discrimination: Bi-lateral Monopoly: Multiplant Monopoly:

Recommended Books:

Additional Readings:
Econ-503: MACRO-ECONOMICS I 3(3-0)

Note: This Course consists upon intermediate level material.

Introduction and National Income


Income Determination and factor market

Theories of Consumption and Their Implications
Theories of Consumption: Keynesian Consumption Function. Absolute income hypothesis and Kuznet’s findings and Reconciliation of Marginal Propensity to Consume and Average Propensity to Consume and Evidences. Duesenbury Hypothesis, Permanent Income Hypothesis / Life Cycle Hypothesis, Beyond Permanent Income Hypothesis, Mathematical derivation of Consumption Models.


Saving and Investment

Money Market: The Demand and Supply of Money

**Aggregate Demand, Supply and Stabilization Policy**


**Recommended Books:**


**Econ-505: MATHEMATICAL ECONOMICS I 3(3-0)**

**The Nature of Mathematical Economics**

Equilibrium Analysis in Economics

Linear Models and Matrix Algebra

Input-Output Analysis
Input-output model, its structure and its derivation. The use of input output model in Economics.

Differentiation

Partial & Total Differentiation

Economic Applications of Partial & Total Differentiation

Optimization: Constrained & Extrema
Linear Programming
Ingredients of linear Programming. Graphical approach, simplex method,
economic applicator of linear programming. Concept of primal and dual.

Recommended Books
1. Chiang, A. C., Fundamental Methods of Mathematical Economics, McGraw Hills,
   (latest Edition).

Econ-507: ISLAMIC ECONOMICS 3(3-0)

Introduction: Islamic Economics
i) Nature, and Importance of Islamic Economics. Islamic Economics
   Versus Economics of Secular Economy and Mixed Economic System.
ii) Brief Introduction of Basic Values of Islam; Taqva, Halal and Haram,
    Justice, Benevolence, Equality, Brotherhood and Cooperation as
    Determinants of Economic Behaviour and Policies.

Major Economic Thoughts: Contribution of Scholars

Islamic Economic System
Silent features of Islamic Economic System; objectives. Economic Freedom,
Property and Ownership Rights. The Concept of Equality and Efficiency. The
Relative Importance of Capital and Labour. Priority to Basic Needs. Concepts
Comparison of Islamic Economic System with Capitalism and Socialism, with
respect to above cited principles / values of Islam.

Microeconomics in Islamic Framework
The Consumer Behavior in Islam. Utility, Moderation, optional Consumption
Behavior.
Organization of Production and Behavioural Theories of Firms.
Objectives and Behaviour of Firm in Islamic Economy. Business Ethics in
Production and Marketing. Hoarding and Gains
Market Structure - Monopoly and Competition, Resource Allocation in Islamic
Stockists / Wholesales, determination of Prices and Rate of Normal Profit / Meeting of Losses. Price Mechanism and State Role in Regulation of Markets.

The Modes of Financing In Islam
- Modarba and Mushark
- Types of Bai. (Bai-Salam, Bai Muajjal, Morabaha.)
- Saving and Investment in Islam. Investment of Savings for Gains.

Distribution in Islamic Economy
- Islamic Stress on Circulating of Wealth. Steps against Concentration of Wealth.
- Social Justice in Islam. Rights of Labour, Distributive Justice
- Use of Land and Other Natural Resources and their Rewards. Role of State in Distribution of Wealth.

Some Basic Macroeconomic Concepts
- Consumption, saving and Investment Functions in Islamic Environment.

Demand and Supply of Money and Banking
- Gold Money, Paper Money arid Credit Money.
- Western Justification of interest. Islamic Concept of Riba, its Implications and Alternatives.
- Functions of Commercial Banks in Islamic Framework.
- Central Banking and Monetary Policy in Islamic Framework.
- Central. Banking and Monetary Policy in Islam.
- Inflation Vs. Design of Capital Market
- Monetary Policy in an Islamic Framework.

Zakat, Social Justice ami State
- Meaning of Zakat, Nisab, Introductory Hlnts about items of Zakat.
- Distributive Role of Zakat and Social Justice. Zakat as a tool in Fiscal Policy.
- Economic Role of Islamic State. Welfare consumption and limits.
- Revenue and Expenditure items in Modern Islamic States. Beneficiaries of Zakat.

Economic Planning and Development
The Islamisation Process in Pakistan
The Islamisation of Banks. Implementation of Zakat/ Usher in Pakistan.

New Emerging Issues and Challenges

Recommended Books.

Econ-509: PUBLIC SECTOR ECONOMICS

Introduction and Role of Public Sector

The Theory of Public Goods

Public Revenue and Taxes

The Theory of Public Goods
Public and Private Goods, Pure Public Goods, Should Public Sector be Produced

**Distributional Equity in Taxation**

**Tax Structure of Pakistan**

**Tax Shifting and Incidence**

**Fiscal Policy: Public Expenditure and Budget**

**Inter - Government Fiscal Relations**

**Development Finance**
Fiscal Policy in a Developing Economy, Tax Structure of LDCs, Role of Deficit Financing. Fiscal Policy in Pakistan and its Impacts.

**Public Debt**

**Recommended Books:**
Harcourt Brace College Publishers.
4. Govt of Pakistan, Economic Survey, Yearly Publication, Ministry of Finance,
Economic Advisor/ Wing, Islamabad.
6. Mutgrave R.A. and B.P., Musgravi; (Latest Eds.), Public Finance in Theory and
Practice, McGraw Hill.
Semester II

Econ-502: MICRO ECONOMICS II 3(3-0)

The Theory of Market Behavior


Game Theory


Pricing of Factors of Production


General Equilibrium

Assumptions of the 2 X 2 X 2 models. Edge Worth Box diagram, Pareto Optimality; Equilibrium conditions. Concept of Contract Curve, Static Properties of A General Equilibrium Model.

General Equilibrium and the Allocation of Resources.

Welfare Economics

**Uncertainty and risk Analysis**

**Recommended Books:**

**Additional Readings:**

(* Strongly Recommended)

**Econ-504: MACRO ECONOMICS II 3(3-0)**

**Note:** This Course consists of advanced literature in economics. Mathematical Approach may be adopted in this course for better understanding.

**Open Economy and Macroeconomic Stabilization**


**Labor Market, Price Expectation and Unemployment**

**Macroeconomic Policy Debate**

**Government Debt and Budget Deficit**

**Economic Fluctuation and Its Sources**

**Long-Term Growth and Full Employment**
- Neo-Classical Model with Technical Progress:

  Capital Embodied Technical Progress.
Neutral Disembodied Technical Progress.
Labor-Augmenting Disembodied Technical Progress.

- Kaldor Saving Function and Neoclassical Production Function.
- Golden Rule and Optimal Growth Models.
- New Growth Theory / Endogenous Growth.

**Recommended Books:**


* Strongly Recommended

**Additional Reading Material / Research Papers:**


cumulative distribution function: Finding the percentile ranking for a given number. Finding the percentile for a given percentage; Summary measures and type of data.

**Measure of Dispersion, Skewness and Kurtosis**

**Probability and Probability Distribution**
The normal probability distributions: Properties of normal distribution, Applications of the standard normal distribution. Areas under the normal curve, Finding areas under the normal curve; The normal approximation to the binomial; Continuity correction factor.

**Survey Sampling and Sampling Distributions**
Sampling the population, Advantages of sampling. Representative samples, Sample design and sample survey. Sampling frame. Probability and non-probability sampling. Sampling with and without replacement. Sampling and non-sampling error, sampling bias; Probability sampling and non-probability sampling methods; Sampling distribution of the mean. The central limit theorem; Sampling distribution of differences between means; Sampling distribution of sample proportion; Sampling distribution of differences between proportions.

**Estimation and Confidence Intervals**
Point estimates and confidence intervals; Estimation by confidence interval: Confidence internal estimate of a population mean (Known Variance), Confidence interval estimate of a population mean (Unknown Variance) Confidence interval for differences of means. Confidence interval for differences of means; Confidence interval for population proportion, Confidence interval for differences between proportions; One sided confidence interval; Sample size for
estimating population mean.

**Simple Linear Regression and Correlation Analysis**

Scatter diagram; Standard methods for obtaining regression line: (i) Inspection, (ii) Semi average, (iii) Least square; principle; Assumptions underlying linear regression; Measures of variation Standard error of the estimate. Coefficient of determination; Prediction in Recession Analysis; Interpolation versus extrapolation; Correlation analysis; Scatter diagram; The coefficient of correlation: Properties characteristic of coefficient of correlation, Correlation and causation; The relationship among the correlation coefficient, the coefficient of determination and the standard error of estimate; Inference about the slope and correlation coefficient; t-test for the slope, F-test for the slope, t-test for correlation coefficient; Estimation of the mean values and prediction of individual values; Confidence interval and prediction interval estimate; Rank correlation.

**Multiple Linear Regression and Correlation Analysis**

Multiple linear regression model. Interpretation of partial regression coefficients; Estimation of multiple linear recession model with two explanatory variables by using Least squares principle. Matrix approach. Deviation form; Pitfalls and problems in multiple regression: Multicollinearity, Variable selection. Model misspecification; Multiple standard error of estimate; Coefficient of multiple determination (adjusted and unadjusted); Evaluating the regression equation: Using a scatter diagram, Correlation matrix. Global test. Individual variable significance test. Qualitative independent variables; Multiple regressions in terms of linear correlation coefficients; Multiple correlation and partial correlation; Nonlinear regression models. Dealing with nonlinear relationship and unequal variability.

**Applied Statistics**

Index Numbers, Un-weighted index numbers; Simple aggregative index; Weighted indexes; Laspeyrc's price index, Paaseche's price index, Marshal-Edgeworth price index; Fisher's ideal index; Consumer Price Index (CPI), Producer Price Index (PPI), CP! versus GDP Deflator; Issues in constructing and using index numbers; Application of index numbers to business and economics. An overview of lime series analysis; Component Factors of the classical multiplication time series model and their estimation: Secular trend; Cyclical variation. Seasonal variation, Irregular variation; Smoothing the annual lime series and using it in forecasting: Moving averages. Weighted moving averages, Exponential smoothing; Using trend and seasonal component in forecasting; Time series and forecasting; The multiplicative model, Calculating the seasonal indexes, De-seasonalization the time series, Using deseasonalized time series to identify trend. Seasonal adjustments, Model based on monthly data. Cyclical component; Modeling cyclic behavior using box-Jenkins ARIMA processes; Using regression analysis in forecasting; Qualitative approach to forecasting:
Delphi method. Expert judgment. Scenario writing. Intuitive approaches; Choosing an appropriate forecasting model; Some observations on time series analysis,

**Recommended Books.**

**Econ-508: MANAGERIAL ECONOMICS 3(3-0)**

**Nature, Scope and Overview of Managerial Economics**

**Demand Analysis, Estimation and Forecasting**

**Production and Cost Analysis**

**Linear Programming**

**Decision Making Under Risk and Uncertainty**

**Pricing Analysis and Decisions**

**A Critique of Traditional Theory of the Firm**

**Managerial Theories and Models of the Firm**

**Public Sector Production and Pricing of Goods.**

**Capital Budgeting and Investment**

**Recommended Books.**

**Econ-510: DEVELOPMENT ECONOMICS: THEORY AND POLICY 3(3-0)**

**Theoretical Foundation; and Sector Specific Issues:**
Scope and New Developments

Major Theories of Development

Agriculture and Industry

Population, Education and Human Capital

International Development Issues and Debates

International Debt, Aid / Assistance
WTO, Liberalization and International Trade

Transnational Corporations (TNC'S), FDI and Development

Poverty and Income Distribution

Environment and Development

Growth Models
Recommended Books.

10. __________(1999), A Profile of Poverty in Pakistan, (In Collaboration with UNDP).
14. UNDP, Human Development Reports, Annual Reports.

Econ-512: POLITICAL ECONOMY AND GLOBAL ORDER 3(3-0)

Introduction

Political Economy and World Order
Perspective, Regional Phenomena and State Order, New State Actors, Theory of Exclusion.

**Regional Dynamics**

**Political Economy of Economic Development**

**Political Economy of Pakistan**

**Technological Change and International Economic Institutions**

**SAARC: Political & Economic Aspects**
Economic Aspects, Poverty Eradication, Trade & Economic Cooperation, Cooperation with Regional NGO's in South Asia. Pakistan and SAARC: Composition of Trade, Foreign Trade Trends in External Trade, Direction of Foreign Trade, Trends of Trade with SAARC. Future Economic Prospects of SAARC.

**Issues in Lawlessness and Development**
Introduction, Economic Crimes, Terrorism & Insurgency., Theories of the Economic impact of Law & Order.

**Socio Economic Developments & Crime**

**Global Issues**

Recommended Books.

5. ---------, (1999), Pakistan, the Economy of an Elitist State, Oxford University Press.
1- Introduction
Definition and scope of Econometrics, Economic theory as the basis for empirical analysis, Mathematical and Econometric models, Desireable properties of an econometric model. Ingredients of Econometric modeling: Specification, Estimation, Evaluation and Forecasting (Orthodox Vs experimental Approach)

The course is designed to enable the students derive relationship between economic variables from the available data. The students should be in a position to apply statistical methods to data via simple mathematical models and to interpret the results by using economic theory. The students are encouraged to learn the use of simple computer programs and econometric packages in handling data and to understand the print outs. The teacher should expose the students to the use of computer in solving simple econometric problems and assignments.

2- The Classical Linear Regression Model (CLRM)

a) The Simple Two-Variables Model
Variables and parameters, Meaning of the explained and explanatory variables, Estimators and estimates, Correlation and Regression theory, Mathematical versus econometric model, Structure of the linear econometric model with two explanatory variables, Rationale for inclusion of the disturbance term, Assumptions of the model with special reference to the disturbance term, The least squares principle, BLUE properties of the OLS estimators, The estimation procedure, The economic interpretation of the estimated coefficients, Hypothesis testing and the use of Z, t & F test statistics, The confidence interval and tests of significance approaches, The ANOVA technique, The explanatory power of the model, Coefficient of determination vs. correlation coefficient: comparing regression and correlation theory, Econometric forecasting and confidence interval for the dependent variable against future value of the independent variable, Important features of a good forecast, Extensions of the model: Time as explanatory variable, Dummy variables, Estimation through the origin.

(b) The Multiple Linear Regression Model (MLRM)
The general format of MLR model, Assumptions of model with special reference to independence of the explanatory variable, Estimation of model with 3-4 explanatory variables using the OLS procedure, Interpretation of the estimated coefficients, Computation, of elasticities The degree of freedom and adjusted $R^2$, The explanatory power of the model and ‘Goodness of Fit’, Hypothesis testing in MLR, Overall significance of the regression and the use of F-statistics, Economic theory and econometric modeling.

3- Deviation from the Classical Assumptions
Assumptions of the classical model and economic reality, Relaxation of the assumptions and estimation issues, Brief introduction to the nature of problems and alternatives.

(i) Multicollinearity
Linear relationship between any two explanatory variables, Nature and severity of the problem, Distinction between perfect and partial Multicollinearity, Properties of OLS estimators in the presence of collinearity, Detection of the problem and remedial measures.

(ii) Heteroskedasticity
Meaning of Heteroskedasticity, The nature of the problem with reference to economic theory, Cross-section data and the problem of non-constant variances, Consequences for OLS estimators, Detection of the problem and remedial measures in brief, Introduction to the Generalized Least-Squares model (GLS).

(iii) Autocorrelation
Autocorrelation and its causes, Time-series data and emergence of the problem with reference to economic theory, The AR (1) process, Consequences of Autocorrelation for OLS estimators, Detection of the problem and remedial measures in brief.

4: Forecasting with a Single Equation Regression Model
What is forecasting and what are its various types? Important features of a good forecast. Variance of conditional and unconditional forecast error. Measures for evaluating the forecasting power of a model.

5- The Simultaneous Equations Models

Recommended Books
- Dougherty, Christopher – Introduction to Econometrics – 4th edition (2011)
- Oxford University Press.
Econ-513: MATHEMATICAL ECONOMICS II 3(3-0)

**Complex Number and Circular Functions**

**Integral Calculus**

**Differential Equations: Continuous Time:**
**First Order Linear Differential Equations**

**Differential Equations: Higher Order Differential Equations**

**Difference Equations: Discrete Time:**
**First Order Difference Equations**

Higher Order Difference Equations

Non-Linear Programming

Recommended Books:

Econ-515 Financial Management for Business Firm 3(3-0)

COURSE OBJECTIVE
This course focuses on the application of modern financial techniques to operating and investing decisions. It comprehensively analyzes working capital management and capital budgeting decisions within the context of the firm’s business strategy. The course is designed for managers in
non-financial functions and financial analysts and managers in financial lending organizations who make working capital loan decisions and it ensures students reach a proficient level of professional applicability.

COURSE OUTLINE

Introduction to Financial Management
  - *The Role of Financial Management*
    - Defining Financial Management
    - Goal of the Firm
    - Organization of the Financial Management Functions
  - *The Business, Tax and Financial Environments*
    - The Business Environment
    - The Tax Environment
    - The Financial Environment

Tools of Financial analysis and Planning
  - *Financial Statement Analysis*
    - Financial statements
    - Balance sheet ratios
    - Income statement and income Statement/Balance Sheet Ratios
    - Trend analysis
    - Common-size and index analysis
  - *Cash-Flow Analysis and Financial Planning*
    - Accounting statement of Cash Flows
    - Cash-flow forecasting
    - Range of Cash-flow estimates
    - Forecasting Financial Statements

Valuation
  - *The Time Value of Money*
    - The interest rate
    - Simple and Compound interest
    - Compounding more than once a year
    - Amortizing a loan
  - *The Valuation of long-term Securities*
    - Distinctions among valuation concepts
    - Bond Valuation
    - Preferred stock valuation
    - Common stock valuation
    - Rates of Return (or Yields)

Risk and Return
  - Defining risk and return
  - Using probability distributions to measure risk
  - Attitudes toward risk
  - Risk and return in a portfolio context
  - Diversification
  - The capital asset pricing model
Cost of Capital
  o **Required Returns and the Cost of Capital**
    • Overall cost of capital of the Firm
    • The CAPM: Project-Specific and Group-Specific required rates of return
    • Evaluation of Projects on the Basis of Their Total Risk
  o **Operating and Financial Leverage**
    • Operating Leverage
    • Financial Leverage
    • Total leverage
    • Cash-Flow ability to service debt

Working Capital Management-I
  o **Overview of Working Capital Management**
    • Working capital issues
    • Financing current assets: Short-term and Long-term Mix
    • Combining liability structure
  o **Cash and Marketable Securities Management**
    • Motives for holding cash
    • Speeding up cash receipts
    • Slowing down Cash pay-outs
    • Electronic Commerce
    • Investment in marketable securities

Working Capital Management-II
  o **Accounts Receivable and Inventory Management**
    • Credit and collection policies
    • Analyzing the credit applicant
    • Inventory management and control
  o **Short-term Financing**
    • Spontaneous financing
    • Negotiated financing
    • Factoring accounts receivable
    • Composition of short-term financing

Investment in Capital Assets
  o Overview of capital budgeting process
  o Estimating project “After-Tx incremental operating cash flows”
  o Capital Budgeting Techniques
  o Project evaluation and selection: Alternative Methods
  o Risk and Managerial Options in Capital Budgeting

Long-term Financing
  o **Long-Term Debt, Preferred Stock and Common Stock**
    • Types of long-term debt instruments
    • Bonds and their features
    • Preferred stock and its features
    • Common stock and its features
    • Dual-class common stock
The Loans and Leases
- Term loans
- Provisions of loan agreements
- Equipment financing
- Lease Financing
- Lease financing vs. debt financing

Recommended Books:
- Principles of Managerial Finance By Lawrence J. Gitman 10th Edition

Econ-517: AGRICULTURAL ECONOMICS 3(3-0)

Introduction and Importance
Agricultural Revolution, Importance of Agriculture, Food Safety, Agriculture vs. Industrial development Debate. Current Stats of Agricultural Development. Brief Overview of Sources of Growth. Introduction to issues in Agriculture etc.

Structure and Characteristics of Agriculture in LDCs

Role of Agriculture in Economic Development

Theory of Runt and the Concept of 'Surplus.'

Agriculture in Dualistic Development Models

Resource Due Efficiency and Technical Change in Peasant Agriculture
Efficiency of Resource Utilization, Technological Change in Agriculture.

**Supply Response**

**Institutional Constraints and Remedial Policies**

**Population and Food Supplies**

**Agriculture and International Trade**

**Recommended Books.**

**Econ-519  MONETARY THEORY AND POLICY  3(3-0)**

**Introduction and Development Of Monetary Mechanism**
Evolution of Money and Payment System. Definition of Money Function of Money & Measurement of Money. Demand for Money & Supply of Money. Definitions of Money, M1, M2, M3, L etc.

**Role of Money in the Economy**

**Demand for Money**

**The Money Supply Process**

**The Conduct of Monetary Policy: Central Bank**
Money & Interest Rates
Real & Nominal Interest Rates, Theorie's of Interest Rate Determination.
The Risk and Term Structure of Interest Rates. The Distinction Between Interest Rates and Returns. Maturity & Volatility of Bond Returns.

Money and Inflation
What is Inflation & Causes of Inflation? Demand - pull Inflation, Cosi - push Inflation, Stagflation & Hyperinflation. Inflation as a Monetary Phenomenon
Policies to Combat Inflation in Pakistan.

Monetary Policy in International Framework

Recommended Books.
1- Overview of the Classical Regression Model
The multiple regression (K-variable) model in matrix format, Assumptions of the model, The Least-Squares estimation procedure in matrix notation, Properties of the OLS estimators, Interpretation of the Beta coefficients ($\beta_1, \beta_2, \ldots, \beta_k$), Hypothesis testing using matrix approach, Forecasting in OLS model, Time as an explanatory variable, Regression on Dummy variables, Dummy variable trap, Chow test, Specification bias and Errors in variables, Estimation with endogenous lagged variables, Restricted Least Squares.

2- Binary Choice and Limited Dependent Variable
The linear probability model. Logit analysis (Generalization to more than one explanatory variable, Goodness of fit and statistical tests). Probit analysis, Censored regressions: Tobit analysis, Sample selection bias.

3- Introduction to the Maximum Likelihood Estimation
The likelihood function, Properties of ML estimators: consistency, Asymptotic normality, efficiency, Comparison with OLS estimators, Instrumental variable (IV) estimators.

4- Time Series Analysis
Rationale for univariate analysis, ARMA and ARIMA Models, Comparison of forecast based on ARIMA and regression models, Stationarity, Unit roots, co-integration and error correction models, Introduction to Autoregressive Distributed Lag models, ARCH models

5- Introduction to Panel Data Models
Use of panel data set to investigate dynamics, Fixed effects regression (within groups, first differences & least squares dummy variable) Random effects regressions.

Recommended Books
- Judge, George G. et al - The Theory and Practice of Econometrics-(1988)
- John Willey and Sons.
- Maddala, G.S. & Kim –Unit Roots, Co-integration and Structural Change -(1998)
- Cambridge University Press.
Econ-516:  RESEARCH METHODOLOGY  3(3-0)


Recommended Books.
6. Neuman W. Lawrence, (1997) Social Research Methods, Qualitative and Quantitative Approaches, Allyn and Bacon; Boston.
Econ-518: HUMAN RESOURCE DEVELOPMENT AND MANAGEMENT 3(3-0)

Introduction and Issues

Human Resources and Economic Growth

Investment in Human Capital and Returns

Mobility and Migration of Human
Migration Decision Determinants, Migration as Investment, Migration Models. Labor Migration from Pakistan, Earnings / Remittance and Impacts. Migration and Development in Pakistan.

Women and Human Development

Health, Nutrition and Human Development
Employment, Unemployment and Manpower Forecasting


International Dialogue Development Cooperation


Recommended Books


Econ-520 INTERNATIONAL TRADE THEORY AND FINANCE 3(3-0)

International Trade Theory

Importance and Bases of Trade
Why Study International Economics? The Changing World and Interdependence:

**Growth and Trade**

**Technology and Factor Endowment**

**Factor Endowment and Heckscher – Ohlin Theory**

**Markets, Cartels and International Trade**

**Tariff, Quota and Trade Policies**

**International Monetary Economics and Finance**

*Foreign Exchange Market and Exchange Rate Determination*

*Purchasing Power Parity, Exchange Rates and Balance of Payments (B.O.P)*

*Open Economy: Monetary and Fiscal Policy*

*International Institution: Trade, Capital and B.O.P.*
Introduction of International Institutions, Role; and Major Activities of IMF. IMF Credit Facilities. Loan Mechanism, Value of SDRs. The Optimum Quantity of Reserves, Optimum Interest Rate. Euro-Dollar, Dollar Exchange and Impacts. Role of IMF in B.O.P Support and Stabilization.

*International Movement's of Factors and Welfare: Impacts / Issues*


Major Contemporary International Economic Issues:
WTO; GATT and Emergency of WTO. Why necessary to Join WTO? WTO: Major Trade Rules and Their Expected Impacts on Trade, B.O.P Deficit. WTO and Fair Trade / Free Trade. Free Trade will it be? Issue of "Are Free Trade Gains; more than Restricted Trade"? Emerging Regional Trading, Blocks, Special Preference and their Impacts. Issues relating to the Contributions of International Financial Institutions and Their Evaluations. Is there need to Reform International Institutions?


Recommended books

Econ-522 INVESTMENT AND PROJECT APPRAISAL 3(3-0)

Introduction
Meaning of Project Appraisal, usefulness and significance. Aspect of project

**Identify Project Benefit' and Costs**

**Pricing Project Costs and Benefits**

**Comparing Project Costs and Benefits (Measuring of a Project Worth)**

**Applying Discounted Measures of Project Worth**

**Cost Effectiveness Analysis**

**Financial (investment) Analysis**
Theoretical and empirical examination and saving and investment. Concept of capitalization types of securities, non-banking financial institution. Development financing. Asset Structure, Stock Price1,; Money Market, Portfolio Theory and Investment Analysis. Financing the industrial sector; Large scale and small scale, Interest rate. Bond market. Real and financial investment. Financial intermediaries; Speculation and Inter- relationship of financial and real variables in the economy,

**Recommended Books.**

Econ-524 ECONOMIC PRINCIPLES, STRATEGIES AND TECHNIQUES  
OF MARKETING 3(3-0)

Introduction to Marketing
Key Marketing Concepts, Scope of Marketing, Evolution of Marketing,  
Importance of Marketing, Marketing as an Exchange Process, Marketing as a  
Demand Management Tool. Marketing Cost and Price Relationship.

Supply Chain / Value Chain Management
Primary and Secondary activities in Supply Chain / Value Chain. Identify and  
Maximizing linkages within the Various Activities.

Strategic Marketing Planning Process
Strategies Models of SMP.

International Market mg: The Target Markets & Marketing Mix
Identify Target Markets. Forecasting Market Demand, The Target Market  
Strategies, Key Elements of Marketing Mix, Local Vs. International Marketing,  
International Marketing Strategy and Planning, Organizational Structure of  
International Markets, Exporting, Contracting, International Corporations and  
their Marketing Techniques. The Promotional Program, the Key Components of  
Promotional Mix.

Product Management
The Consumer and Industrial Products. Product Planning and Development,  
Product Adoption and Diffusion, Product Life Cycle, Product Positioning and  
Differentiation, Product Mix Strategies.

Marketing Cost, Finance and Cost Management
Analysis of Cost, Marketing Cost for Products, Reasons for Higher Cost and  
Methods to Minimize. Abuses and Advantages of Marketing Cost Debate over  
Financing. Significance of Prices, Methods of Price Determination. Key Pricing  
Strategies. Price WETS.
Distribution Management and Market Intermediaries
Designing Distribution Networks. Channels Conflict and Channel Power.
Physical Distribution. The Wholesale Market, Retail Marketing.

Consumer's and Buyer's Behaviours

Managing Marketing in Various Forms of Competition

Managing Total Marketing Effort
Key Organizations for Marketing, Market Control, Marketing Audit.

Segmentation and Targeting

Pricing Strategies and Sales
Short-run and Long-run Pricing, Predicting Future Conditions Forecasting Sales and difference Pricing Policies, Data Analysis and Sales Forecasting, Survey and Price Analysis, Profit and other Motives for Pricing.

Recommended Books.

OR

*Thesis 06 (6-0) (In Place of Econ- 522 & Econ-524)
*However, this option will be available to only 5 top students if they would like to opt.